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(54) **VEIN MATCHING FOR DIFFICULT BIOMETRIC AUTHENTICATION CASES**

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(58) **Field of Classification Search**
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See application file for complete search history.

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(57) **ABSTRACT**

Subepidermal imaging of a face may be used to assess subepidermal features such as blood vessels (e.g., veins) when the device is attempting to authenticate a user in a facial recognition authentication process. Assessment of the subepidermal features may be used to distinguish between users that have closely related facial features (e.g., siblings or twins) in situations where the facial recognition authentication process has less certainty in a decision about recognition of the user's face as an authorized user.

20 Claims, 7 Drawing Sheets